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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,344	12/09/2003	Walter Fleischmann	17240	3553

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EXAMINER

SAWHNEY, HARGOBIND S

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,344

Applicant(s)

FLEISCHMANN ET AL.

Examiner

Hargobind S. Sawhney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 7-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 7-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The response filed on November 19, 2006 has been entered.
2. In view of newly discovered references: Berman et al. (US Patent Application Pub. No.: US 2004/0135522 A1) and Lys et al. (US Patent No.; 6,717,376 B2), the Final Office Action mailed on September 8, 2006 has been withdrawn.
3. The amendment filed on June 19, 2006 has been entered. Accordingly:
 - Claims 1, 7 and 11 have been amended;
 - Claims 2 and 4-6 have been cancelled; and
 - New claims 12-27 have been added.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,3, and 7-27 are rejected under C as being unpatentable over Fleischmann (US Patent No.: 6,203,180 B1) in view of Berman et al. (US Patent Application Pub. No.: US 2004/0135522 A1), hereinafter referred as Berman.

Regarding Claim 1, Fleischmann ('180 B1) discloses an aircraft cabin lighting system 8 (Figure 1) comprising plurality of light emitting diodes (LEDs) 9 connected in

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series, and the LEDs arranged on the ceiling of the aircraft cabin (Figures 2 and 3, column 2, lines 62-67, and column 3, lines 5-7).

However, Fleischmann ('180 B1) does not specifically teach the LED-based lighting system operationally coupled to a control unit, a pulse width modulator and a plurality of regulating modules.

On the other hand, Berman discloses an LED-based lighting system 10 (Figure 1) comprising:

- a plurality of LEDs actuatable by pulse width modulation means 200 - included in the control module 20 (Figure 1, Para. 0037 and 0039); a control unit 25 with a plurality of outputs (Figure 1, Para. 0028); and regulating modules 21,22,23 interposed between the control unit 25 and the LED lighting units (Figure 1, Para.0028); each of the regulating modules 21,22,23 connected to respective one of the outputs of the control device 25 (Figure 1, Para. 0028); each of the regulating modules 21-23 having an output connected to a separate one of the lighting units LEDs string (Figure 1, Para. 0028); actuation of the LED lighting units 14 being independent from each other – based in dedicated regulation modules 21-23 (Figure 1, Para. 0028); and each of the regulating modules 21-23 holding current passing through the LED string, and keeping the LEDs string at constant current (Figure 1, Para. 0028).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the aircraft cabin lighting system of Fleischmann ('180 B1) by providing:

- the control device as taught by Berman for the benefits energy saving and operational flexibility of interior illumination;
- a pulse width modulator as taught by Berman for the benefits of switch-mode power supply at regulated voltage;
- regulating modules for controlling the current for the benefits of substantially constant light output from the LEDs, and for longevity of operational life of the LEDs.

Regarding claims 3 and 8-11, Fleischmann ('180 B1) in view of Berman discloses the aircraft cabin lighting system further comprising:

- the simultaneously actuated plurality of units 8 being connected in parallel with each other (Fleischmann, abstract and Claim 1);
- the plurality of LEDs 9 representing the color-changing light pattern (Fleischmann, abstract, column 3, lines 26-35 and claims 7 and 8); and
- the arrangement of the LEDs 9 representing a starry sky (Fleischmann, abstract, column 1, lines 62-67) pattern;
- the actuation of the lighting produce by the LEDs 9 coupled to an event – an emergency (Fleischmann, abstract, column 2, lines 21-27); and
- a plurality of LEDs 14 being connected in series in each of the LED strings (Figure 5):

Regarding Claim 7, Fleischmann ('180 B1) in view of Berman discloses the lighting system for an aircraft cabin, and the lighting system including a plurality of various color LEDs displaying design or image (Fleischmann, Figure 1, column 2, lines 19-30) on the ceiling of the cabin.

However, neither combined nor individual teaching of Fleischmann ('180 B1) and Berman specifically teaches the lighting system arranged at or in the cabin wall, and supporting displaying of signs or images.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to arrange the plurality of LEDs in the cabin walls, instead of making an LED arrangement in the ceiling, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claims 912- 19, Fleischmann ('180 B1) in view of Berman discloses the aircraft cabin lighting system meeting the limitations in similar manner as that applied to respective claims 1, 3 and 7-11 discussed above.

Regarding claims 20-27, Fleischmann ('180 B1) in view of Berman discloses the aircraft cabin lighting system meeting the limitations in similar manner as that applied to respective claims 1, 3 and 7-11 discussed above.

Response to Amendment

6. Applicant's arguments filed on November 8, 2006 with respect to the 35 U.S.C. 103(a) rejections of claims 1-3 and 6-11 have been fully considered but they are moot in view of the new ground(s) of rejections necessitated by the by the amendment.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blumel (U.S. Patent Application Pub. No. US 2005/0077838 A1), Min et al. (U.S. Patent Application Pub. No. US 2003/0102819 A1) and Hochstein (U.S. Patent No. 5,661,645

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S. Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:00 am-4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS 12/5/2006


ALI ALAVI
PRIMARY EXAMINER